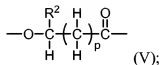Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1.   (Currently Amended) A blend comprising:

a first PHA, the first PHA comprising 3-hydroxybutyrate; and

a second PHA, the second PHA being different from the first PHA and blended with the first PHA, the second PHA being a copolymer ~~having at least~~ consisting of a first comonomer and a second comonomer, the first comonomer being different from the second comonomer, one of the first and second comonomers being of formula (V):

$$-O-\overset{R^2}{\underset{H}{C}}-\left(\overset{H}{\underset{H}{C}}\right)_p-\overset{O}{\underset{}{C}}-\quad (V);$$

wherein p is 2 or 3, R^2 is H or C_1-C_6 alkyl, the blend comprises from about 25 % by weight to about 49 % by weight of the second PHA, a stiffness of the blend is less than a stiffness of the first PHA, and when the first PHA and the second PHA are blended, and the blend is molded, the blend has a deformation angle tolerance of at least about 5°.

2.   (Original) The blend of claim 1, wherein the blend has a deformation angle tolerance of at least about 15°.

3.   (Original) The blend of claim 1, wherein the blend has a deformation angle tolerance of at least about 30°.

4.   (Original) The blend of claim 1, wherein the blend has a deformation angle tolerance of at least about 60°.

5.   (Original) The blend of claim 1, wherein the blend has a deformation angle tolerance of at least about 90°.

6.   (Original) The blend of claim 1, wherein the blend has a deformation angle tolerance of at least about 120°.

7.   (Original) The blend of claim 1, wherein the blend has a stiffness of at most about 250 Mpa.

8.   (Cancelled)

9.   (Previously Presented) The blend of claim 1, wherein the first PHA is a homopolymer.

10.   (Cancelled)

11.   (Currently Amended) The blend of claim ~~10~~ 9, wherein the other of the first and second comonomers of the second PHA is 3-hydroxybutyrate.

12.   (Cancelled)

13.   (Original) The blend of claim 1, wherein the first PHA is a copolymer having a comonomer 1-A and a comonomer 1-B and the second PHA is a copolymer having a comonomer 2-A and a comonomer 2-B.

14.   (Original) The blend of claim 13, wherein comonomer 1-A and comonomer 2-A are the same comonomer.

15.   (Original) The blend of claim 14, wherein comonomer 1-A and comonomer 2-A are both 3-hydroxybutyrate.

16.   (Previously Presented) The blend of claim 15, wherein comonomer 1-B is, independently, 4-hydroxybutyrate, 3-hydroxyhexanoate, 3-hydroxyoctanoate, 3-hydroxypropionate, 4-hydroxyvalerate, 6-hydroxyhexanoate, 3-hydroxydecanoate, 3-hydroxydodecanoate, or 3-hydroxydodecenoate.

17.   (Original) The blend of claim 13, wherein the first PHA copolymer and the second PHA copolymer are the same copolymer, wherein the ratio of comonomer 1-A:comonomer 1-B is different from the ratio of comonomer 2-A:comonomer 2-B.

18.   (Original) The blend of claim 17, wherein comonomer 1-A and comonomer 2-A are both 3-hydroxybutyrate.

19.   (Previously Presented) The blend of claim 18, wherein comonomer 1-B is 4-hydroxybutyrate, 3-hydroxyhexanoate, 3-hydroxyoctanoate, 3-hydroxypropionate, 6-hydroxyhexanoate, 3-hydroxydecanoate, 3-hydroxydodecanoate, or 3-hydroxydodecenoate.

20.   (Original) The blend of claim 15, wherein the first PHA copolymer contains at most about 99 percent by weight of comonomer 1-B.

21.   (Original) The blend of claim 15, wherein the first PHA copolymer contains at most about 50 percent by weight of comonomer 1-B.

22.   (Original) The blend of claim 15, wherein the first PHA copolymer contains at most about 15 percent by weight of comonomer 1-B.

23.   (Original) The blend of claim 15, wherein the first PHA copolymer contains at most about 7 percent by weight of comonomer 1-B.

24.   (Original) The blend of claim 15, wherein the first PHA copolymer contains at most about 1 percent by weight of comonomer 1-B.

25. (Original) The blend of claim 15, wherein the second PHA copolymer contains at most about 99 percent by weight of comonomer 2-B.

26. (Original) The blend of claim 15, wherein the second PHA copolymer contains at most about 50 percent by weight of comonomer 2-B.

27. (Original) The blend of claim 15, wherein the second PHA copolymer contains at most about 35 percent by weight of comonomer 2-B.

28. (Original) The blend of claim 15, wherein the second PHA copolymer contains at most about 15 percent by weight of comonomer 2-B.

29. (Original) The blend of claim 15, wherein the second PHA copolymer contains at most about 5 percent by weight of comonomer 2-B.

30-35. (Cancelled)

36. (Previously Presented) The blend of claim 1, wherein the first PHA has a first weight average molecular weight and the second PHA has a second weight average molecular weight, wherein the first weight average molecular weight is from about 10,000 Daltons to about 1,600,000 Daltons and the weight average second molecular weight is from about 10,000 Daltons to about 1,600,000 Daltons.

37. (Previously Presented) The blend of claim 36, wherein the weight average first molecular weight is from about 200,000 Daltons to about 650,000 Daltons and the second weight average molecular weight is from about 200,000 Daltons to about 650,000 Daltons.

38. (Previously Presented) The blend of claim 36, wherein one PHA has a weight average molecular weight that is at most about 200,000 Daltons, and the other PHA has a weight average molecular weight that is at most about 1,000,000 Daltons.

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39.   (Previously Presented) The blend of claim 36, wherein the first and second weight average molecular weights are both at most about 750,000 Daltons.

40.   (Previously Presented) The blend of claim 36, wherein one PHA has a weight average molecular weight that is about ten times greater than the weight average molecular weight of the other PHA.

41.   (Previously Presented) The blend of claim 36, wherein one PHA has a weight average molecular weight that is about six times greater than the weight average molecular weight of the other PHA.

42.   (Previously Presented) The blend of claim 36, wherein one PHA has a weight average molecular weight that is about three times greater than the weight average molecular weight of the other PHA.

43.   (Previously Presented) The blend of claim 36, wherein one PHA has a weight average molecular weight that is about the same as the weight average molecular weight of the other PHA.

44.   (Original) The blend of claim 1, wherein the first PHA has a first glass transition temperature and the second PHA has a second glass transition temperature, wherein the difference between the first and second glass transition temperatures is at least about 1°C.

45.   (Original) The blend of claim 44, wherein the difference between the first and second glass transition temperatures is at least about 5°C.

46.   (Original) The blend of claim 44, wherein the difference between the first and second glass transition temperatures is at least about 40°C.

47. (Original) The blend of claim 44, wherein the difference between the first and second glass transition temperatures is at least about 60°C.

48. (Original) The blend of claim 1, wherein the first PHA has a first melt temperature and the second PHA has a second melt temperature, wherein the difference between the first and second melt temperatures is at least about 10°C.

49. (Original) The blend of claim 48, wherein the difference between the first and second melt temperatures is at least about 50°C.

50-51. (Cancelled)

52. (Original) The blend of claim 1, wherein the first PHA has a first Hansen solubility parameter and the second PHA has a second Hansen solubility parameter, wherein the difference between the first and second Hansen solubility parameters is at least about 0.02 J/mol.

53. (Original) The blend of claim 52, wherein the difference between the first and second Hansen solubility parameters is at least about 0.04 J/mol.

54. (Original) The blend of claim 52, wherein the difference between the first and second Hansen solubility parameters is at least about 0.05 J/mol.
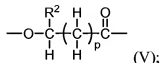
55. (Original) The blend of claim 52, wherein the difference between the first and second Hansen solubility parameters is at least about 0.10 J/mol.

56. (Original) The blend of claim 1, wherein the blend is a miscible blend.

57. (Original) The blend of claim 1, wherein the blend is an immiscible blend.

58. (Original) The blend of claim 1, wherein the blend is a partially miscible blend.

59. (Currently Amended) A blend comprising:

a first PHA, the first PHA comprising 3-hydroxybutyrate; and

a second PHA, the second PHA being different from the first PHA and blended with the first PHA, the second PHA being a copolymer ~~having at least~~ <u>consisting of</u> a first comonomer and a second comonomer, the first comonomer being different from the second comonomer, one of the first and second comonomers being of formula (V):

$$-O-\overset{\overset{\displaystyle R^2}{|}}{\underset{\underset{\displaystyle H}{|}}{C}}-\left(\overset{\overset{\displaystyle H}{|}}{\underset{\underset{\displaystyle H}{|}}{C}}\right)_{\!\!p}\overset{\overset{\displaystyle O}{\|}}{C}- \quad \text{(V)};$$

wherein p is 2 or 3, R^2 is H or C_1-C_6 alkyl, the blend comprises from about 25 % by weight to about 49 % by weight of the second PHA, a stiffness of the blend is less than a stiffness of the first PHA, and when the first PHA and the second PHA are blended, and the blend is molded the blend has a thermal deformation resistance temperature of at least about 80°C.

60. (Original) The blend of claim 59, wherein the blend exhibits a thermal deformation resistance temperature of at least about 85°C.

61. (Original) The blend of claim 59, wherein the blend exhibits a thermal deformation resistance temperature of at least about 90°C.
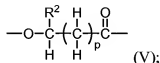
62. (Original) The blend of claim 59, wherein the blend exhibits a thermal deformation resistance temperature of at least about 100°C.

~~62~~ <u>63</u>. (Currently Amended) The blend of claim 59, wherein the blend exhibits a thermal deformation resistance temperature of at least about 120°C.

63 64. (Currently Amended) A blend comprising:

a first PHA, the first PHA comprising 3-hydroxybutyrate; and

a second PHA, the second PHA being different from the first PHA and blended with the

first PHA, the second PHA being a copolymer having at least consisting of a first comonomer

and a second comonomer, the first comonomer being different from the second comonomer, one

of the first and second comonomers being of formula (V):

$$-O-\overset{R^2}{\underset{H}{C}}-\left(\overset{H}{\underset{H}{C}}\right)_p\overset{O}{\overset{\|}{C}}-\quad (V);$$

wherein p is 2 or 3, R^2 is H or C_1-C_6 alkyl, the blend comprises from about 25 % by

weight to about 49 % by weight of the second PHA, a stiffness of the blend is less than a

stiffness of the first PHA, and when the first PHA and the second PHA are blended, and the

blend is molded, the blend has a thermal deformation resistance temperature of at least 80°C and

a deformation angle tolerance of at least about 5°.

64 65. (Currently Amended) The blend of claim 63 64, wherein the blend has a first

PHA copolymer having a comonomer 1-A and a comonomer 1-B blended with a second PHA

copolymer having a comonomer 2-A and a comonomer 2-B.

65 66. (Currently Amended) The blend of claim 64 65, wherein comonomer 1-A and

comonomer 2-A are the same comonomer.

66 67. (Currently Amended) The blend of claim 65 66, wherein comonomer 1-A and

comonomer 2-A are both 3-hydroxybutyrate.

67 68. (Currently Amended) The blend of claim 66 67, wherein comonomer 1-B is,

independently, 4-hydroxybutyrate, 3-hydroxyhexanoate, 3-hydroxyoctanoate, 3-

hydroxypropionate, 4-hydroxyvalerate, 6-hydroxyhexanoate, 3-hydroxydecanoate, 3-

hydroxydodecanoate, or 3-hydroxydodecenoate.

68 69. (Currently Amended) The blend of claim 67 68, wherein the first PHA copolymer has a first glass transition temperature, a first melt temperature, and a first Hansen solubility parameter, and the second PHA copolymer has a second glass transition temperature, a second melt temperature, and a second Hansen solubility parameter.

69 70. (Currently Amended) The blend of claim 68 69, wherein both the first glass transition temperature and the first melt temperature are greater than and more positive than the second glass transition temperature and the second melt temperature.

70 71. (Currently Amended) The blend of claim 69 70, wherein the blend exhibits a single glass transition temperature and a single melt temperature.

71 72. (Currently Amended) The blend of claim 70 71, wherein the difference between the first Hansen solubility parameter and the second Hansen solubility parameter is at most about 0.04 J/mol.

72 73. (Currently Amended) The blend of claim 70 71, wherein the difference between the first Hansen solubility parameter and the second Hansen solubility parameter is at least about 0.05 J/mol.

73 74. (Currently Amended) The blend of claim 70 71, wherein the glass transition temperature of the blend is substantially similar to the second glass transition temperature and the melt temperature of the blend is substantially similar to the first melt temperature.

74 75. (Currently Amended) The blend of claim 66 67, wherein the blend has a stiffness of at most about 250 Mpa.

75 76. (Currently Amended) The blend of claim 64 65, wherein the first PHA has a first weight average molecular weight and the second PHA has a second weight average molecular weight, wherein the first weight average molecular weight is from about 10,000 Daltons to about

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1,600,000 Daltons and the second weight average molecular weight is from about 10,000 Daltons to about 1,600,000 Daltons.
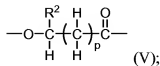
76 77. (Currently Amended) The blend of claim 75 76, wherein one PHA has a weight average molecular weight that is at most about 200,000 Daltons, and the other PHA has a weight average molecular weight that is at most about 1,000,000 Daltons.

77 78. (Currently Amended) The blend of claim 64 65, wherein one PHA copolymer has a weight average molecular weight that is at most about 200,000 Daltons, and the other PHA copolymer has a weight average molecular weight that is at most about 1,000,000 Daltons.

78 79. (Currently Amended) The blend of claim 64 65, wherein comonomer 1-A and comonomer 2-A are the same comonomer and the first PHA copolymer contains at most about 15 percent by weight of comonomer 1-B and the second PHA copolymer contains at most about 50 percent of comonomer 2-B.

79 80. (Currently Amended) An article comprising at least about 1 percent by weight of the PHA blend of claim 63 64.

80 81. (Currently Amended) An adhesive blend comprising:
a first PHA, the first PHA comprising 3-hydroxybutyrate; and
a second PHA, the second PHA being different from the first PHA and blended with the first PHA, the second PHA being a copolymer ~~having at least~~ consisting of a first comonomer and a second comonomer, the first comonomer being different from the second comonomer, one of the first and second comonomers being of formula (V):

$$-\text{O}-\underset{\underset{H}{|}}{\overset{\overset{R^2}{|}}{C}}\left(\underset{\underset{H}{|}}{\overset{\overset{H}{|}}{C}}\right)_p\overset{\overset{O}{\parallel}}{C}- \quad \text{(V)};$$

wherein p is 2 or 3, R^2 is H or C_1-C_6 alkyl, the blend comprises from about 25 % by weight to about 49 % by weight of the second PHA, a stiffness of the blend is less than a stiffness of the first PHA,

the adhesive blend having a surface tack time value of at most about 15 seconds,

wherein, when exposed to a pressure of at most about 100 psig, the adhesive blend can form a bond with a surface or itself, the bond having a peel bond strength of at least about 10 Nm^{-2}.

81 82. (Currently Amended) The blend of claim 80 81, further comprising an additive selected from a starch, thermoplastic starch, a polybutylene succinate, a synthetic biodegradable resins, a polylactic acid, a polyglycolic acid celulosic materials, a plant fiber, or a polyolefin.

82 83. (Currently Amended) A blend comprising:

a first PHA, the first PHA comprising 3-hydroxybutyrate; and

a second PHA, the second PHA being different from the first PHA, wherein the second PHA comprises poly(3-hydroxybutyrate-co-3-hydroxyvalerate-co-3-hydroxyhexanoate) or poly(3-hydroxybutyrate-co-3-hydroxyhexanoate-co-3-hydroxyoctanoate-co-3-hydroxydecanoate-co-3-hydroxydodecanoate-co-3-hydroxydodecenoate);

wherein an amount of the first PHA in the blend is greater than an amount of the second PHA in the blend, a stiffness of the blend is less than a stiffness of the first PHA and when the first PHA and the second PHA are blended, and the blend is molded, the blend has a deformation angle tolerance of at least about 5°.

84. (New) A blend comprising:

a first PHA, the first PHA comprising 3-hydroxybutyrate; and

a second PHA, the second PHA being different from the first PHA, wherein the second PHA comprises poly(3-hydroxybutyrate-co-3-hydroxyhexanoate-co-3-hydroxyoctanoate-co-3-hydroxydecanoate-co-3-hydroxydodecanoate-co-3-hydroxydodecenoate);

wherein an amount of the first PHA in the blend is greater than an amount of the second PHA in the blend, a stiffness of the blend is less than a stiffness of the first PHA and when the

first PHA and the second PHA are blended, and the blend is molded, the blend has a deformation angle tolerance of at least about 5°.